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<u>REMARKS</u>

Claims 1-4, 7, 12 and 21 are pending. Claims 5, 6 and 9-11 have been

cancelled and Claims 8 and 13-20 have been withdrawn from consideration. Claim 1 has

been amended. Favorable consideration of the currently pending claims is respectfully

requested in light of the foregoing amendments and following remarks. No new matter is

added.

Rejections Under 35 U.S.C. §103:

In the Office Action, the Examiner has rejected Claims 1-4, 7, 12 and 21 under

35 U.S.C. § 103(a) as being unpatentable over Connell et al. (UK 1,037,144) in view of

Timmons et al. (5,876,753) or vice versa, as discussed in sections 9-10 of the Office Action

mailed January 12, 2005 and section 5 of the Office Action mailed September 28, 2005.

Applicants respectfully submit that the amendments to the claims and the comments set forth

below overcome the Examiner's rejection.

The Examiner has indicated that the units describing applicants' "average

power" are actually units of power density. Applicants accept the Examiner's comment, but

submit that because the specification and claims recite "power" in terms of power per unit

volume, it is clear that applicants are referring to "power density." Nevertheless, applicants

have amended Claim 1 and the specification to reflect the more appropriate "average power

density" terminology. Applicants submit that the amendment to the specification simply

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incorporates what is otherwise clear from the specification and therefore does not constitute

new matter.

Applicants agree with the Examiner's understanding that the term "average

power density" relates to "power on" time only. Applicants also note that the discussion in

the December 28, 2005 Amendment and Response to Final Office Action uses the term

"average power" (not average power density) because this is the term referred to in the

Timmons et al. reference. Finally, applicants confirm that average power does take into

account the "duty cycle," i.e., both "on" and "off" phases, as defined by Timmons et al. (col.

8, lines 1-5).

In the Office Action, the Examiner rejected the arguments set forth in the

December 28, 2005 Amendment and Response to Final Office Action related to Timmons et

al. (US 5,876,753). As noted in the December 28th Response, applicants assert that

Timmons et al. fail to disclose and, in fact, teach away from the use of low average power

densities as recited in Claim 1.

Moreover, applicants note that the Timmons et al. reference broadly relates to

the deposition of "carbonaceous compounds having a reactive functional group" by "low

power variable duty cycle pulsed plasma deposition" (claim 1), but fails to define "low

power" or provide any values for power density or chamber volume. The portion of the

Timmons et al. specification cited by the Examiner (col. 7, lines 28-45) notes that "the

correlation between applied electromagnetic power and the plasma generated film

composition is complicated by the fact that many other process variables must also be

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simultaneously considered" (emphasis added). Such variables include the "size (e.g.,

volume) of the reactor chamber, the location of the substrates relative to the plasma

discharge zone, the monomer flow rates, the monomer pressure, the nature of the monomer,

etc." Timmons et al. provide only general guidance for the selection of these variables, a

"complicated" process requiring "simultaneous" consideration of process variables. The

Examiner dismisses these teachings of Timmons et al., arguing that it would require only

"routine experimentation" to achieve the claimed power densities and dismissing the

criticality of applicants' limitation of average power density to < 0.05 W/cm<sup>3</sup>.

Applicants respectfully disagree and request that the Examiner consider and

appreciate applicants' novel selection of a particular set of compounds not disclosed by

Timmons et al. and the surprising finding that these compounds deposit successfully under

energetic conditions not disclosed or suggested by Timmons et al. The novelty of

applicants' selection is supported by the relatively poor results attained in Comparative

Examples 4 and 5 of the specification. Applicants submit that, in view of the broad and

speculative scope of Timmons et al., more than simple "routine experimentation" is required

to achieve the claimed subject matter from the disclosure of Timmons et al.

Applicants note that the Connell et al. does not remedy the deficiencies of

Timmons et al. described above. Accordingly, applicants request that the rejection of Claims

1-4, 7, 12 and 21 under 35 U.S.C. § 103(a) over Connell et al. in view of Timmons et al. or

vice versa be withdrawn.

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The Examiner notes that, as stated in section 6 of the Office Action mailed

September 28, 2005, the Examiner believes that Delfort et al. provide cumulative evidence

that the amine groups would have been expected to proceed in a covalent coupling reaction

or derivatization at the site of the epoxy as suggested and claimed, as well as providing

further evidence of the known desirability of such reaction products. In addition, the

Examiner has further rejected Claims 1-4, 7, 12 and 21 under 35 U.S.C. § 103(a) as being

unpatentable over Timmons et al. in view of Kolluri et al. (5,723,219).

Applicants submit that neither Delfort et al. or Kolluri et al., nor the other

prior art of record, remedy the deficiencies of Timmons et al. described above. Accordingly,

applicants request that the rejection of Claims 1-4, 7, 12 and 21 under 35 U.S.C. § 103(a)

over Timmons et al. in view of Kolluri et al. be withdrawn.

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## **CONCLUSION**

Based upon the amendments and remarks provided above, applicants believe that Claims 1-4, 7, 12 and 21 are in condition for allowance. A Notice of Allowance is therefore respectfully solicited.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 11-0855.

If the Examiner believes any informalities remain in the application that may be corrected by Examiner's Amendment, or there are any other issues that can be resolved by telephone interview, a telephone call to the undersigned attorney at (404) 815-6500 is respectfully solicited.

Respectfully submitted,

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